

Invention disclosure submission.  
Complete all sections and send to the Nortel Patent Dept at:  
OTTAWA, Canada: Patent Dept., 0265, NTPAT  
or HARLOW, UK: Patent Dept., HAL05  
or RICHARDSON, USA: Patent Dept., Mail Stop C-0419, RICH1

No. ID1048

Rec'd. 03 Jul 98

Attny/Agent

**NORTEL**  
NORTHERN TELECOM

**Invention Title**

**SDH/SONET Virtual Concatenation**

Correspondence will be directed to the first-named inventor only.

<b>(1) Full legal name of first inventor (include middle initial):</b>				<b>Residence and post office address if different</b>	
Russell John Paul				21 The Orchards Sawbridgeworth Herts. CM21 9BB	
<b>Name usually known as:</b>					
<b>Global ID</b> 3200755					
<b>Phone</b> 742-2631	<b>Location</b> HAL02	<b>Department</b> GI41	<b>Mailstop</b>	<b>Occupation</b>	<b>Fax</b>
<b>Signature</b>			<b>Date</b>	<b>Citizen of</b> UK	

<b>(2) Name of supervisor or divisional head</b>		<b>(5) Project Number</b>
David Barniskill		7539
<b>Name of AVP Reported to:</b>		<b>(6) Indicate your LOB</b>
Peter Schuddeboom		Broadband Networks
<b>Signature</b>	<b>Date</b>	<b>If Advanced Technology, please indicate which group.</b> Please Make a Selection

**Technical field**

<b>(3) Date of first written description.</b>	<b>Key words for searching</b>
	SDH, SONET, Virtual Concatenation
<b>Has this invention been discussed with others? If so, please complete.</b>	
<b>Outside Nortel</b> To Whom? Robert Franks When? 2/7/98	
<b>Was there a Non-Disclosure Agreement in place?</b> Assume so!	
<b>Inside Nortel</b> To Whom? Ewan Bewley When? 3/7/98	
<b>Are you aware of any imminent future disclosures? Please detail.</b> I expect this work to be presented to ETSI TM1 in their November meeting.	

<b>(4) Which products will use this invention?</b>	<b>(7) Is the invention relevant to a Standards activity?</b>
TN1X/C/P, TN4XE, TN16XE, TN16X, TN64X and possibly in some SONET transport equipment. The ASICs to implement this are currently being developed under a fully funded programme.	yes
	<b>If so give details:</b> This work will be presented to ETSI TM1 in their November meeting. Following that, it will be taken to ITU-T SG15, where we expect that Lucent will want to propose a different scheme to solve the same problem.
	<b>(8) Does this invention arise from any arrangement involving any external organization?</b> no
	<b>Organization.</b>
	<b>Contract no.</b>

**(a) Brief description of the invention.**

The SDH LAN has already been described in patent submissions 0882, 0885, 0888, 0889, 0890, 0932. This new submission was previously described along with 0889 SDH LAN Mapping.

**(b) What is the problem solved by the invention?**

The specific problem is to carry traffic in channels of bandwidths which are greater than that offered by standard SDH virtual containers over disparate and heterogeneous networks.

(c) What other solutions have been tried and what were their shortcomings?

see previous submissions

(d) What are the specific elements or steps that solved the problem. Please provide high level details.

These have already been explained to Ewan Bewley (Harlow patents office) and Robert Franks (external patent attorney).

(e) What is the commercial value of the invention to Nortel and Nortel's major competitors? (see guidelines)

This idea is already in development and on the POR for roll out on several products during 1999.

Lucent and Alcatel will try to beat us to market with something similar.

# Additional Inventors / Contractor Information

No. ID1048

<b>(1) Full legal name of first inventor (include middle initial)</b>				<b>Residence address (and post office address if different)</b>	
Russell John Paul Global ID 3200755				21 The Orchards Sawbridgeworth Herts	
Phone 742-2631	Location HAL02	Department G141	Mailstop	Occupation	Fax
Signature			Date	Citizen of UK	
<b>Contractor Information</b>				<b>Any other agreement(s) with your agency.</b>	
Agency worked for				Please Make a Selection	
Non disclosure agreement with Nortel Please Make a Selection				Please specify	
Exhibit B of the Master Services agreement with your agency Please Make a Selection					

<b>(1) Full legal name of 2nd inventor (include middle initial)</b>				<b>Residence address (and post office address if different)</b>	
Goodman Mick 2712099					
Phone	Location	Department	Mailstop	Occupation	Fax
Signature			Date	Citizen of	
<b>Contractor Information</b>				<b>Any other agreement(s) with your agency.</b>	
Agency worked for				Please Make a Selection	
Non disclosure agreement with Nortel Please Make a Selection				Please specify	
Exhibit B of the Master Services agreement with your agency Please Make a Selection					

<b>(1) Full legal name of 3rd inventor (include middle initial)</b>				<b>Residence address (and post office address if different)</b>	
murton chris 1071844					
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Signature			Date	Citizen of	
<b>Contractor Information</b>				<b>Any other agreement(s) with your agency.</b>	
Agency worked for				Please Make a Selection	
Non disclosure agreement with Nortel Please Make a Selection				Please specify	
Exhibit B of the Master Services agreement with your agency Please Make a Selection					

<b>(1) Full legal name of 4th inventor (include middle initial)</b>				<b>Residence address (and post office address if different)</b>	
Ramsden Chris 6161905					
Phone	Location	Department	Mailstop	Occupation	Fax
Signature			Date	Citizen of	
<b>Contractor Information</b>				<b>Any other agreement(s) with your agency.</b>	
Agency worked for				Please specify	
Non disclosure agreement with Nortel Please Make a Selection				Please Make a Selection	
Exhibit B of the Master Services agreement with your agency Please Make a Selection					

## Additional Inventors / Contractor Information: (continued)

No. ID1048

(1) Full legal name of 5th inventor (include middle initial)				Residence address (and post office address if different)	
Shields		Jlm		3220951	
Phone	Location	Department	Mailstop	Occupation	Fax
Signature		Date		Citizen of	
Contractor Information				Any other agreement(s) with your agency.	
Agency worked for				Please Make a Selection	
Non disclosure agreement with Nortel				Please specify	
Please Make a Selection					
Exhibit B of the Master Services agreement with your agency					
Please Make a Selection					

(1) Full legal name of 6th inventor (include middle initial)				Residence address (and post office address if different)	
Phone	Location	Department	Mailstop	Occupation	Fax
Signature		Date		Citizen of	
Contractor Information				Any other agreement(s) with your agency.	
Agency worked for				Please Make a Selection	
Non disclosure agreement with Nortel				Please specify	
Please Make a Selection					
Exhibit B of the Master Services agreement with your agency					
Please Make a Selection					

(1) Full legal name of 7th inventor (include middle initial)				Residence address (and post office address if different)	
Phone	Location	Department	Mailstop	Occupation	Fax
Signature		Date		Citizen of	
Contractor Information				Any other agreement(s) with your agency.	
Agency worked for				Please Make a Selection	
Non disclosure agreement with Nortel				Please specify	
Please Make a Selection					
Exhibit B of the Master Services agreement with your agency					
Please Make a Selection					

(1) Full legal name of 8th inventor (include middle initial)				Residence address (and post office address if different)	
Phone	Location	Department	Mailstop	Occupation	Fax
Signature		Date		Citizen of	
Contractor Information				Any other agreement(s) with your agency.	
Agency worked for				Please Make a Selection	
Non disclosure agreement with Nortel				Please specify	
Please Make a Selection					
Exhibit B of the Master Services agreement with your agency					
Please Make a Selection					